



PATENT
Docket No. 10799/12

#91P
8/27/02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTORS : John E. THOMPSON et al.
SERIAL NO. : 09/725,019
FILED : November 29, 2000
FOR : DNA ENCODING A PLANT DEOXYHYPUSINE
SYNTHASE, A PLANT EUKARYOTIC INITIATION
FACTOR 5A, TRANSGENIC PLANTS AND A
METHOD FOR CONTROLLING SENESCENCE
PROGRAMMED CELL DEATH IN PLANTS
EXAMINER : Medina Ahmed Ibrahim
GROUP : 1638

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RESPONSE TO RESTRICTION REQUIREMENT

Madame:

This is in response to a Restriction Requirement dated March 22, 2002.
Accordingly a response is due on or before August 22, 2002 with the payment of a fee.

Applicant hereby requests a four month extension of time for responding to this
Restriction Requirement. The U.S. Patent and Trademark Office is hereby authorized to
charge the fee for extension of time and any other fees or to credit any overpayments
associated with this response to Deposit Account No. 11-0600.

The Examiner has required that an election be made to one of the seven groups of
claims.

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Group I: Claims 1-2, 21, 43-44, and 47 "drawn to an isolated DNA encoding a deoxyhypusine synthase, a vector, transgenic plant cell comprising it, and a method for inhibiting senescence by sense expression of said DNA."

Group II: Claims 3 and 4, "drawn to an isolated senescence-induced DHS."

Group III: Claims 5-6, 22, and 47 "drawn to isolated DNA molecule encoding senescence induced eIF-5A, in sense, in a vector, transgenic plant cell comprising it."

Group IV: Claims 7-11, 14-20, 24-46, 48-54, 56-57, 59-65, and 67-70, "drawn to a vector comprising antisense oligonucleotides of senescence-induced DHS gene, transgenic plant/progeny, a method for inhibiting the expression of endogenous DHS, or altering age related senescence in a plant, or increasing resistance to diseases by expressing said sequences, a plant/progeny with inhibited expression of DHS."

Group V: Claims 12-17, 24-42, 45-46, 48-53, 55-56, 58, 66-70, "drawn to a vector drawn to a vector comprising antisense oligonucleotides of senescence-induced eIF-5A gene, transgenic plant/progeny, a method for inhibiting or altering age-related senescence by expressing said nucleotide."

Group VI: Claims 23 and 47, "drawn to a vector comprising both DHS and eIF-5A DNAs in sense orientation, and transgenic plant cell expressing both DHS and eIF-5A."

Group VII: Claims 28-42, 45, 56, and 67-70, "drawn to a method for inhibiting the expression of endogenous DHS and eIF-5A, or altering age related senescence in a plant, or increasing resistance to diseases by antisense expression of oligonucleotides of DHS and eIF-5A in a vector, a plant/progeny with inhibited expression of both DHS and eIF-5A."

Applicants elect group V (Claims 12-17, 24-42, 45-46, 48-53, 55-56, 58, 66-70) with traverse.

The Examiner has also required that Applicant elect one nucleic acid sequence to be examined in conjunction with the elected group of claims. Applicant does not admit that each nucleotide sequence does not represent an independent and distinct invention. However, Applicant asserts that this election requirement is nevertheless burdensome to the applicants when considered in light of the relationship between the claimed nucleic acid sequences and limitations of the claims themselves.

Applicants would like to point out that although the SEQ ID NOs (SEQ ID NOs. 11, 13, and 15) are to different eIF-5A DNAs, they are related and should be prosecuted together or at the very least should be examined as a genus/species election. For example, the inventors have discovered and claimed various methods of inhibiting senescence by utilizing various DNAs in a senescence-induced pathway, namely DHS DNAs and/or eIF-5A DNAs. The three different eIF-5A DNAs (SEQ ID NO. 11 (tomato senescence-induced eIF-5A), 13 (carnation senescence-induced eIF-5A), 15 (Arabidopsis senescence-induced eIF-5A) can be viewed as three species of eIF-5A DNAs.

Although, their sequence differs, they all encode a senescence-induced eIF-5A gene. The senescence-induced eIF-5A genes function in the same way and the methods disclosed and claimed may use either or all of these eIF-5A genes. It is therefore respectfully requested that when examining the method claims that involve the eIF-5A sequences, that the Examiner view the three sequences as three species of DHS genes. Thus, for example, the Applicants may elected one species, (i.e. one eIF-5A sequence) and after the Examiner searches the method for the first elected species and determines that it is clear, she will then examine the method claims with the other two species (the other two eIF-5A sequences). Finally, since the sequences would be searched as they relate to the method claims, it would not be overly burdensome to also examine the claims that are directed to the eIF-5A sequences per se.

Accordingly, applicants elect group V (Claims 12-17, 24-42, 45-46, 48-53, 55-56, 58, 66-70) for prosecution and respectfully request the three eIF-5A sequences SEQ ID NO. 11, 13 and 15 be examined together. In the event that the Examiner chooses to examine these sequences as a species/genus type grouping, the Applicants elect SEQ ID NO. 11. In the event that the Examiner does not agree to examine these as species, Applicants also elect SEQ ID NO. 11. Applicants reserve the right to prosecute the non-elected claims in divisional or continuation applications.

CONCLUSION

Applicants respectfully requests entry of the present Response and consideration of the above-identified application on the merits. If the Examiner wishes to discuss the